

TABLE OF CONTENTS

	Page
Chapter 1 Introduction	1-1
1.1 Applicant’s Proposal and Required Approvals	1-3
1.2 Context and History.....	1-4
1.3 Environmental Review.....	1-5
1.4 Overarching Policy Issues	1-6
1.4.1 Long-Term Reliance on Oil.....	1-7
1.4.1.1 Need for This Project.....	1-7
1.4.1.2 Need for Fossil Fuels	1-7
1.4.2 Routing Issues	1-8
1.4.2.1 Establishing a New Mainline Corridor.....	1-8
1.4.2.2 Resource Prioritization	1-8
1.5 Organization of the EIS.....	1-8
1.6 References.....	1-10

LIST OF FIGURES

	Page
Figure 1-1. Project Location and Existing Crude Oil Pipelines	1-2

This page left intentionally blank.

Chapter 1

Introduction

Enbridge Energy, Limited Partnership (Enbridge, or Applicant) has applied for a Certificate of Need (CN) and a route permit from the Minnesota Public Utilities Commission (Commission) to construct and operate a new 340-mile, 36-inch-diameter pipeline in northern Minnesota to abandon in place an aging 282-mile, 34-inch oil pipeline. The existing pipeline, called Line 3, is part of Enbridge's Mainline system. The existing Line 3 pipeline requires extensive maintenance and is currently restricted to a capacity of 390,000 barrels of crude oil per day. Enbridge's proposed new 36-inch-diameter pipeline would be capable of carrying up to 760,000 barrels of Canadian heavy crude oil per day, which was the original design capacity of the existing Line 3. Figure 1-1 shows the location of the proposed Line 3 Project, as well as the locations of other crude oil pipelines in northern Minnesota.

This Environmental Impact Statement (EIS) generally refers to the Enbridge proposal as the "Line 3 Project" or "the Project." Enbridge refers to their proposal as the "Line 3 Replacement Project" in their application.

Purpose Of and Need for This EIS Is To Inform both Regulators and Citizens

Minnesota's declared environmental policy is "to create and maintain conditions under which human beings and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of the state's people."¹

The Minnesota Environmental Policy Act also requires that "Where there is potential for significant environmental effects resulting from a major governmental action, the action shall be preceded by a detailed environmental impact statement." In this case, the "governmental action" is two separate but related decisions by the Commission:

1. Whether to issue a CN.
2. Whether to issue a route permit for the project and, if so, with what conditions.

Enbridge needs numerous other state and federal approvals before they can build the project. (See Chapter 4.)

Therefore, the purpose of and need for this EIS is primarily to help inform the Commission's decisions by evaluating the potential human and environmental effects of permitting the proposed Line 3 Project, considering reasonable alternatives, and exploring methods for reducing adverse effects. Enbridge's proposed need for the Project is contained in their CN application and is summarized in Section 2.2 of the EIS.

¹ Minnesota Statutes § 116D.02.

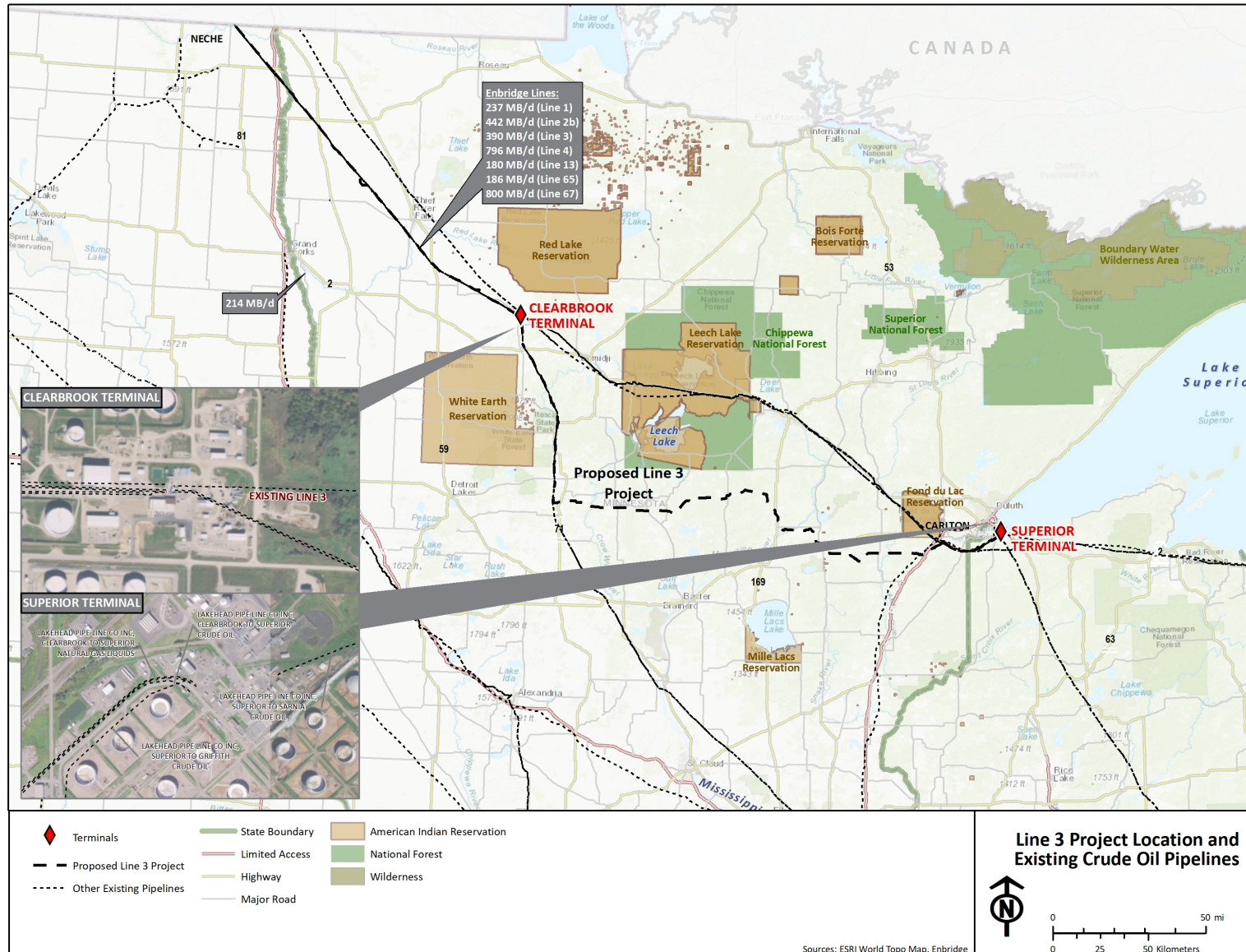


Figure 1-1. Project Location and Existing Crude Oil Pipelines

The EIS is a factual document that is designed to inform public deliberations and government decision-making, but it does not make specific recommendations regarding either the CN or the route permit for the Project. The development and contents of this Final EIS reflect public comments received during the scoping phase of the Project and timely, substantive comments received following issuance of the Draft EIS.

The Minnesota Public Utilities Commission asked the Minnesota Department of Commerce, Energy Environmental Review and Analysis (DOC-EERA) staff to prepare this EIS in cooperation with the Minnesota Department of Natural Resources (Minnesota DNR) and the Minnesota Pollution Control Agency (Minnesota PCA) to facilitate the review of Enbridge's CN and route permit applications for the Project. Other agencies with permitting authority will also use information in this EIS.

EIS Focuses On Information That Is Directly Relevant To the CN and Route Decisions

Since the purpose of the EIS is to inform decision-making on Enbridge's CN and route permit applications for the Project, it focuses on providing information that is directly relevant to the two decisions in front of the Commission:

1. Whether the Commission should issue or deny the CN for Enbridge's Line 3 Project; and
2. If the Commission Issues a CN, what route should be approved, and with what conditions?

During the scoping process for this EIS and the public comment period following issuance of the Draft EIS, commenters raised a number of critical long-term energy-policy and tribal rights issues that do not easily fit within the framework of a project-specific EIS. Timely, substantive comments that directly relate to the environmental review required for this Project were considered during the preparation of this Final EIS. Some of these issues, however, are too broad to be resolved in this EIS, which is intended to facilitate decision-making on a single, specific pipeline proposal.

1.1 APPLICANT'S PROPOSAL AND REQUIRED APPROVALS

The Commission ordered this EIS to review Enbridge's April 24, 2015, applications for a CN and route permit for the Line 3 Project. As mentioned previously, in its CN application, Enbridge indicated that it proposes to replace the existing Line 3 pipeline for three main reasons. First, according to Enbridge, the Project would avoid the integrity risks associated with the existing Line 3 by replacing it with a new pipeline that uses new technology and materials (instead of continuing their ongoing dig and repair program). Second, Enbridge indicated that the new pipeline would improve their ability to fill all of the requests to ship Western Canadian crude oil on their system by allowing throughput of 760,000 barrels per day and improving the line's capacity to carry heavy crude oils. Third, Enbridge indicated that the new pipeline would reduce the amount of power used per barrel to ship crude oil through Line 3 and on the Enbridge Mainline system (Enbridge 2014).

A New 340-Mile Route Would Create a New Corridor Southeast of Clearbrook, Minnesota

The Applicant's preferred route for the Project involves constructing approximately 340 miles of a new 36-inch-diameter pipeline in Minnesota to replace the 282-mile existing 34-inch-diameter Line 3 pipeline. While most of the proposed route would be co-located along existing infrastructure, it would create a new Enbridge corridor southeast from Clearbrook to Carlton, Minnesota. Enbridge proposes to abandon the current Line 3 in place. The existing Line 3 pipeline originates in Canada and crosses the U.S.–Canada border near Neche, North Dakota. The line continues through North Dakota and

Minnesota, terminating at the Enbridge Superior Station and Terminal Facility (Superior terminal) near Superior, Wisconsin. As proposed by Enbridge, the new pipeline would generally parallel the existing Line 3 pipeline along the Enbridge Mainline system right-of-way from the North Dakota–Minnesota border in Kittson County to the Clearbrook terminal in Clearwater County. However, from Clearbrook to the terminal in Superior, Wisconsin, the proposed pipeline would diverge from the existing Line 3 corridor. Enbridge proposes to abandon (permanently deactivate) the existing Line 3 pipeline in place.

1.2 CONTEXT AND HISTORY

The Existing Pipeline Network in Minnesota Transports 2.4 Million Barrels of Oil per Day

Enbridge's existing Line 3 is part of an extensive network of 4,100 miles of pipeline that currently transports an estimated 2.4 million barrels of crude oil across northern Minnesota each day. Line 3 is one of six crude oil pipelines that form Enbridge's Mainline system through Minnesota, carrying crude oil from western Canada through a corridor across northwestern Minnesota, through Clearbrook, and east to Superior.

The Enbridge Mainline system, together with four Minnesota Pipe Line Company pipelines that carry crude oil south in a corridor from Clearbrook to the Twin Cities area, supplies approximately 400,000 barrels of oil per day to Minnesota's two petroleum refineries. These refineries use about 15 percent of the crude oil crossing into the state, with the bulk of the products refined from Canadian crude oil. Nearly all the heavy crude oil refineries in the Upper Midwest receive a portion of their crude oil, either directly or indirectly, from the Enbridge pipeline system that crosses Minnesota.

The Enbridge Mainline System Was Constructed between 1950 and 1969

The first component of the Enbridge Mainline system was established when the Interprovincial Pipe Line, Inc. (now Enbridge Pipelines, Inc.) crude oil pipeline was laid in 1950 from Edmonton, Canada, to Superior, Wisconsin. The Mainline continued to expand over the following decades, by adding pumping or compression capacity, laying additional pipe, or both (Bott 2004). Construction of Line 3 in this Mainline corridor began in 1962 as 34-inch parallel loops to Enbridge's Line 2 pipeline, to create additional Enbridge Mainline system capacity. Additional loops were constructed annually until a continuous 34-inch line, referred to as "Line 3," was completed and separated from Line 2 in 1969.

This EIS and the Commission's Permit Processes Represent an Opportunity to Consider Current Environmental and Socioeconomic Issues

The Interprovincial Pipe Line and various expansions and additions that established the Mainline corridor were authorized prior to the passage of the National Environmental Policy Act, the Minnesota Environmental Policy Act (MEPA), and Minnesota's CN and Pipeline Routing statutes.²

As a result, the Mainline corridor was not subject to state or federal environmental review, or the Commission's procedures for CN and route permitting. Certain permits and authorizations were required prior to the construction of these early pipelines. However, some environmental review considerations that today are understood to be essential to informed decision-making (e.g., environmental justice issues, threats to rare resources, and climate change impacts) were not factored into the original establishment of the Mainline.

² Minnesota Statutes § 116D.

Unlike the original construction of the existing Line 3, the Line 3 Project is subject to the Commission's CN and route permitting process and is subject to formal state environmental review processes. While efficiencies associated with following existing infrastructure rights-of-way tend to encourage continued use of an established corridor like the Mainline, the environmental review and permitting procedure for the Project presents an opportunity for a full evaluation of environmental and socioeconomic factors that did not necessarily enter into the original routing decisions for Enbridge's Mainline system.

1.3 ENVIRONMENTAL REVIEW

The Commission Must Understand and Consider Impacts of Their CN and Routing Decisions

MEPA requires decision-makers like the Commission to be informed about the potentially significant human and environmental consequences of an action and alternatives to that action before they make the relevant permitting decisions.³ In this case, the Commission needs to understand and consider the impacts associated with both the CN decision and the routing decision.

The Commission has ordered DOC-EERA to prepare an EIS in accordance with Minnesota Administrative Rules (Minn. R.) Chapter 4410 to provide this information.⁴ The EIS content and procedures therefore are being completed under Minnesota Administrative Rules Chapter 4410.

The Commission's two decisions, furthermore, are based on the criteria and parameters in Minn. R. Chapters 7853 and 7852 regarding need and routing determinations, respectively. Therefore, the EIS specifically considers impacts of the proposed action and alternatives that correspond with each decision point specified in these rules.

This EIS Evaluates Impacts and Alternatives for the CN Decision Using Applicable Criteria

The EIS evaluates impacts and alternatives for the CN determination, under Minn. R. Chapter 7853, which instructs the Commission to assess need via a multi-part decision, as follows:

- A. The probable result of denial would adversely affect the future adequacy, reliability, or efficiency of energy supply to the Applicant, to the Applicant's customers, or to the people of Minnesota and neighboring states.⁵
- B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by parties or persons other than the Applicant.⁶
- C. The consequences to society of granting the CN are more favorable than the consequences of denying the certificate.⁷

³ Minnesota Statutes § 116D.04, Subpart 2.

⁴ Commission Order Joining Need and Routing Dockets, February 1, 2016, eDockets Number [20162-117877-01](#).

⁵ Minnesota Administrative Rules Part 7853.0130 (A).

⁶ Minnesota Administrative Rules Part 7853.0130 (B).

⁷ Minnesota Administrative Rules Part 7853.0130 (C).

- D. It has not been demonstrated that the design, construction, or operation of the proposed facility would fail to comply with the relevant policies, rules, or regulations of other federal, state, or local agencies.⁸

The EIS evaluates the impacts of granting a CN for the proposed action against denial of the CN by considering alternatives, including:

1. Continued use of the existing Line 3;
2. Use of alternative pipeline systems or modes of transport such as trucks and trains to support adequate, reliable, and efficient supply; and
3. Alternative methods of supplementing the existing Line 3 to support adequate, reliable, and efficient supply.

The EIS Also Evaluates Proposed and Alternative Routes, Contingent on CN Approval

A route permit for the Project cannot be approved without a CN. Even though the route decision is secondary, the Commission ordered this EIS to address both the CN and route permit decisions so that, if the CN is granted, the information needed to understand the impacts of the route decision is already developed and available in this EIS. For the routing decision, Minn. R. Chapter 7852 instructs the Commission to consider the characteristics, potential impacts, and methods to minimize or mitigate the potential impacts of all proposed routes to select a route that minimizes human and environmental impact. For the Commission to be fully informed about the human and environmental impacts of this decision, the EIS evaluates the impacts of the proposed action against alternative routes.

Through these analyses, the EIS compares alternatives to allow the Commission and citizens, other agencies, and governments to work from a common set of facts. The EIS does not advocate or state a preference for a specific outcome or alternative route.

As described in the *EIS Scoping Document*, public comments regarding the scope of the EIS identified numerous alternatives intended to eliminate or mitigate specific impacts, including system alternatives (CN alternative), route alternatives and route segment alternatives (Minnesota Department of Commerce 2016). Chapter 4 of the EIS describes the alternatives selected for detailed study in the EIS, and the impacts of these alternatives are analyzed and compared in Chapter 5 and Chapter 6. All of these alternatives were identified through comments received during public comment periods on the Sandpiper Project, the Line 3 Project, or both.

1.4 OVERARCHING POLICY ISSUES

Larger Energy Policy Issues Are Beyond the Scope of This EIS

As noted above, DOC-EERA staff, with the support of Minnesota DNR and the Minnesota PCA, has prepared this EIS for the Commission, which has before it Enbridge's CN and route permit applications for the Line 3 Project, and for other agencies and entities with permitting authority related to the Project. The Commission has ordered this EIS so they can make an informed response to applications before them for the Project.

⁸ Minn. R. Part 7853.0130 (D).

While pipeline projects are increasingly contributing to public debate over important broader energy policy issues, many of these overarching policy issues are beyond the scope of this EIS because they stretch well beyond the specific decision before the Commission. However, where the policy issues specifically relate to the CN or routes, the EIS provides a project-level assessment.

1.4.1 Long-Term Reliance on Oil

1.4.1.1 *Need for This Project*

The EIS Does Not Determine Need for This Project

While the need for the proposed pipeline with the proposed throughput capacity is an issue for the Commission, this EIS will not assess the Project need. Instead, the environmental impacts of reasonable alternatives for the need decision are evaluated in this EIS to aid the Commission's evaluation of the criteria set forth in Minn. R. Chapter 7853. Based on the criteria and the information about environmental impacts in the EIS, the Commission ultimately will determine in its CN decision whether there is a need for the proposed Project. If the Applicant is granted a CN for the proposed Project, the Applicant's proposed start and endpoints will be used in the route permit decision. If the Commission determines that alternate start and endpoints would be more reasonable and prudent, a route with these start and endpoints could be applied for.

1.4.1.2 *Need for Fossil Fuels*

Comprehensive Policy-Level Assessment of Fossil Fuels in Our Society and Associated Tribal Rights Issues Is Beyond the Scope of an EIS for a Single Pipeline

Beyond market demand for the oil supplied by a single pipeline, or the practicality of replacing a pipeline versus repairing aging infrastructure, much of the debate surrounding recent oil pipeline projects has focused on the environmental and social cost of continuing to use fossil fuels. These issues include the human and environmental implications of climate change, and the risks associated with extracting and transporting fossil fuels, including potential threats to human rights. Human rights include:

- The right to water;
- The right to health;
- The right to information about the potential effects of these industries;
- The right to protest; and
- Indigenous rights to free, prior, and informed consent (Barlow 2014).

In the context of the Commission's CN process, which proceeds on a project-by-project basis, the EIS addresses these issues as they relate to the proposal before the Commission but does not provide a policy-level assessment of the societal implications of continued reliance on fossil fuel. For example, the EIS addresses greenhouse gas and climate change implications of the Project, but does not address the long-term climate consequences of state or federal energy policy. Similarly, the EIS addresses the impact of the Project on tribal rights and ways of life but does not address the bigger-picture consequences of state or federal energy policy for tribal communities.

1.4.2 Routing Issues

1.4.2.1 *Establishing a New Mainline Corridor*

The Public Is Concerned About a New Pipeline Corridor Potentially Being Established

During the scoping of this EIS, many public comments raised concerns about the establishment of a new pipeline corridor—in the Mississippi River Headwaters area specifically, and in the “Lake District” generally. This concern stems from the fact that, as the pipelines in the existing Mainline corridor age and need to be replaced, a new corridor for the Line 3 Project may become a de facto new Mainline corridor. The need for a more deliberate energy infrastructure planning process, potentially through a “generic EIS,” is at the core of the public’s concern. An overwhelming amount of public comment and testimony in the Sandpiper docket⁹ reflects this large and complicated question. This question is also raised in a number of the public comments received during the DEIS comment period.

1.4.2.2 *Resource Prioritization*

The EIS Establishes Facts and Does Not Prioritize Some Resources over Others

The EIS assesses potential impacts on a wide range of resources and provides quantitative and qualitative descriptions of the nature, magnitude, and duration of these impacts. In addition, the EIS compares the nature, magnitude, and duration of impacts on a given resource across various alternatives. While the presentation of impact data in the EIS highlights tradeoffs across the different alternatives so that decision-makers and other stakeholders can work from a common set of facts, the EIS does not prioritize one resource over another, nor does it prescribe how impacts on different types of resources should be weighted. The analysis in the EIS may show, for example, that some alternatives would result in greater impacts on human settlement and fewer impacts on natural resources, or more impacts on pristine waters and fewer impacts on waters that already are stressed by pollution. Decisions about whether and how to prioritize avoiding populated areas over undisturbed natural areas, and whether to concentrate infrastructure in already disturbed watersheds or spread the burden to other areas are part of the Commission’s charge and are not prescribed by the EIS.

1.5 ORGANIZATION OF THE EIS

The remainder of this EIS is organized into the following 12 chapters, followed by appendices.

Chapter 2 Project Description – Describes the Project as proposed by the Applicant, including the proposed route, objectives, and estimated costs. Chapter 2 also describes the Applicant’s engineering, design, construction plans, land acquisition processes, and Applicant-proposed measures to avoid and minimize environmental impacts.

Chapter 3 Regulatory Framework – Describes the regulatory framework associated with the proposed Project, including the CN and route permit processes, the EIS process, major federal and tribal permits and consultation requirements, and other state and local permits.

⁹ Enbridge and North Dakota Pipeline Company LLC. 2014. Docket No. PL-6668/CN13-473. Before the Minnesota Public Utilities Commission. Revised January 31.

Chapter 4 Alternatives to the Proposed Project – Describes alternatives to the proposed Project, including the No Action Alternative (outcome associated with denial of the CN), and alternative routes for the route permitting decision.

Chapter 5 Existing Conditions, Impacts, and Mitigation – Certificate of Need – Describes the existing conditions of resources with the potential to be affected by the proposed Project or CN Alternatives; describes the nature, magnitude, and duration of impacts associated with the proposed Project and each CN Alternative; and recommends mitigation measures that could reduce impacts.

Chapter 6 Existing Conditions, Impacts, and Mitigation – Route Permit – Describes the existing conditions of resources with the potential to be affected by the proposed Project or route alternatives; describes the nature, magnitude, and duration of impacts associated with each routing option; compares route alternatives from Clearbrook, Minnesota to Carlton, Minnesota; and recommends mitigation measures that could reduce impacts.

Chapter 7 Route Segment Alternatives – Describes the route segment alternatives representing minor deviations along the Applicant’s preferred route and compares the nature, magnitude, and duration of impacts associated with the route segment alternatives to those associated with the corresponding portion of the Applicant’s preferred route.

Chapter 8 Existing Line 3 Abandonment and Removal – Describes the process that would be followed for abandonment in place or for removal of the existing Line 3.

Chapter 9 Tribal Resources – Describes the tribal resources that could be affected by the Applicant’s preferred route and the route alternatives. These resources, which tend to be interconnected natural and cultural resources, provide the means for subsistence and economic viability to many tribal members. Tribal resources also reinforce traditional practices, beliefs, and tribal values, which closely tie into the health and well-being of the tribal community.

Chapter 10 Accidental Crude Oil Releases – Describes the potential for an unanticipated crude oil release during operation of the proposed Line 3 pipeline that could adversely affect environmental and human resources. The chapter discusses the potential for failures and subsequent releases, crude oil behavior in the environment, and the types of sensitive resources that could be affected should a release occur. This chapter provides context regarding observations from historical incidents and relevant studies while focusing on the proposed Project and alternatives. Comparisons of alternatives based on the potential for exposures and impacts on sensitive resources are provided. Also described are spill prevention, preparedness, and response measures that could influence the extent and duration of a release, and the potential impacts on resources that might be particularly vulnerable to crude oil exposures.

Chapter 11 Environmental Justice – Assesses the potential for the proposed Project and route alternatives to disproportionately affect low-income and minority populations, and describes the nature, magnitude, and duration of any disproportionate impacts.

Chapter 12 Cumulative Potential Effects – Describes reasonably foreseeable projects in the proposed Project area and assesses the cumulative impacts of the proposed Project in the context of these reasonably foreseeable projects, along with other past and present projects in the same area.

Chapter 13 List of Preparers – Identifies the individuals and agencies involved in preparing the EIS.

1.6 REFERENCES

- Barlow. 2014. Liquid Pipeline: Extreme energy's threat to the Great Lakes and the St. Lawrence River. <https://canadians.org/sites/default/files/publications/GL-Pipelines-Final-web.pdf>. Accessed on April 1, 2017.
- Bott, Robert. 2004. Evolution of Canada's Oil and Gas industry. Canadian Centre for Energy Information, Calgary, Alberta, Canada. (ISBN 1-894348-16-8.)
- Enbridge and North Dakota Pipeline Company, LLC. 2014. Certificate of Need Application, Section 1.0. (Docket No. PL-6668/CN13-473.)
- Minnesota Department of Commerce. 2016. Final Scoping Decision Document for Line 3 Pipeline Replacement Project. PUC Docket Nos. PPL-15-137/CN-14-916. December 5, 2016. https://mn.gov/commerce/energyfacilities/documents/34079/FSDD_L3R_FN_160112.pdf Accessed August 15, 2017.